



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/501,014

03/14/2005

Chun-Il Koh

CL-10388

3763

23123 7590 05/01/2009
SCHMEISER OLSEN & WATTS
18 E UNIVERSITY DRIVE
SUITE # 101
MESA, AZ 85201

EXAMINER

EDWARDS, LYDIA E

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

05/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,014	Applicant(s) KOH, CHUN-IL	
	Examiner LYDIA EDWARDS	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1 and 3-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 1/16/2009 with respect to claims 1 and 3 have been fully considered but they are not persuasive.

As to applicant's argument that neither Kim nor Ginyama teach all the elements of the inner blades and outer blades, Kim teaches an agitator with first and second rectangle plates joined to agitating arms; the agitator has almost right-angled triangle shaped third plates each of which has a sloping surface slightly curved outward and is joined to the second plates to be perpendicular to, and in diagonal direction of, each of the second plates (Col 4, lines 47-58). He also teaches that one end of the second plate is formed unevenly as an uneven part for crushing the solid stuff contained in the waste (Col 5, lines 15-17). The examiner deems that agitating arms of Kim is a functional equivalent of the instant claim 1. Furthermore, it would have been an obvious matter of design choice to use the inner and outer blades of the instant claim 1, since applicant has not disclosed that the inner and outer blades of the instant claim 1, solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the agitating arms of Kim.

As to applicant's argument that Kim does not teach or suggest the use of actinomyces bovis microorganism bacteria, the examiner agrees. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use actinomyces bovis to urge the decomposition process, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Art Unit: 1797

As to applicant's argument that Kim does not teach the solid-liquid separator, the examiner respectfully disagrees. Kim teaches a solid-liquid separator (Col 7, lines 35-36) however, it is not located in the interior of the cooling tank (Col 5, line 23-Col 8, line 12; Figure 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a third filter, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate that third filter inside the cooling tank, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Applicant's arguments see amendment, filed 1/16/2009, with respect to claims 7-10 have been fully considered and are persuasive. The rejection of claims 7-10 has been withdrawn.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (EP 0860407) in view of Ginyama et al. (JP 2000233166).

Regarding Claim 1, Kim ('407) discloses an organic waste decomposition device, comprising: a plate shaped base arm (Col 3, lines 47-49 [42]); a cylindrical shell casing which is installed in the base frame and receive a microorganism therein (Figure 1 [10]); a shaft which is rotatably installed in a center portion of the shell casing (Col 2, lines 23-24; Col 3, lines 47-49; Col 8, lines 24-26); a plurality of arm blades which are engaged to the shaft and are adapted to agitate and crush the organic wastes (Col 2, lines 47-49; Col 4, line 47- Col 5, line 22; Col 10, lines 15-45), wherein each arm blade includes a plurality of inner arm blades which each has an inner arm plate having an end portion engaged to the shaft, and an inner end plate engaged to the other end portion of the inner arm plate and including a center portion bent, and which are installed at a regular interval with respect to an axial direction of the shaft; and an outer arm blade which includes an outer arm plate having an end engaged to the shaft, an outer end plate engaged to the other end portion of the outer arm plate and having a center portion bent, a sub-plate engaged to an upper portion of the outer arm plate at a certain slanted angle, and an outer arm plate, installed at both ends of the shaft; a driving motor which is adapted to provide a rotational force to the shaft (Col 8, lines 24-26); a condenser which is adapted to liquefy a vapor discharged when an organic waste is decomposed in the interior of the shell casing and to discharge the liquefied vapor (Col 6, lines 35-36); a steam pipe which is adapted to connect an upper portion of the shell casing and the condenser (Col 8, lines 12-36).

Kim teaches an agitator with first and second rectangle plates joined to agitating arms; the agitator has almost right-angled triangle shaped third plates each of which has a sloping surface slightly curved outward and is joined to the second plates to be perpendicular to, and in

Art Unit: 1797

diagonal direction of, each of the second plates (Col 4, lines 47-58). He also teaches that one end of the second plate is formed unevenly as an uneven part for crushing the solid stuff contained in the waste (Col 5, lines 15-17). The examiner deems that agitating arms of Kim is a functional equivalent of the instant claim 1. Furthermore, it would have been an obvious matter of design choice to use the inner and outer blades of the instant claim 1, since applicant has not disclosed that the inner and outer blades of the instant claim 1, solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the agitating arms of Kim.

Kim does not explicitly state wherein a ring blower is used. However he does disclose an air intake [18] for continuously supplying.

Ginyama et al. (' 166) teaches the use of a blower (Abstract) in a similar device; therefore it was known in the art at the time the invention was made to incorporate a blower to supply air into the interior shell casing to aid in the decomposition process. Ginyama et al. also discloses heat exchangers (Abstract) of which the examiner deems to be equivalent to a pre-heater. It would have also been obvious to one having ordinary skill in the art at the time the invention was made to provide a heating device adapted to heat the air being supplied to the tank to urge the decomposition of the organic waste.

Kim does not specifically state wherein a control box is used and adapted to control the operations of the driving motor. However he does mention several sensors that are used to control the process (Col 7, lines 40-58 and Col 14, lines 22-37). Therefore a control box is inherently taught by Kim. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a control box to the drive motor, blower, and pre-heater as taught by Kim and Ginyama et al., since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. In re Venner, 120 USPQ 192. Regarding Claim 3, Kim ('407) discloses a cover which is adapted to protect the shell casing (Col 3, lines 43-44 and Figure 11 [12]).

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (EP 0860407).

Regarding Claims 4, 5 and 6, Kim ('407) discloses an organic waste decomposition device, comprising: a fermentation tank which includes an agitator capable of cutting an inputted organic waste (Col 10, lines 41-45; a cooling tank which is adapted to cool a carbonic acid gas including water which occurs in the fermentation tank (Col 5, line 23-Col 8, line 12), a gas-liquid separator which is adapted to separate water and a carbonic acid gas flown in through the outlet pipe and to discharge the water through a first drainage pipe formed in a lower portion, and in which the carbonic acid gas returns to the fermentation tank through the exhaust pipe formed in an upper portion (Col 5, line 23-Col 8, line 12).

Kim teaches a solid-liquid separator however, it is not located in the interior of the cooling tank (Col 5, line 23-Col 8, line 12; Figure 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a third filter, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate that third filter inside the cooling tank, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Kim does not disclose the use of *actinomyces bovis*. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use *actinomyces bovis* to urge the decomposition process, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably

Art Unit: 1797

distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Allowable Subject Matter

Claims 7-10 are allowed. The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claim 7, prior art does not teach or suggest an automatic cleaning system of an organic waste composition device comprising an eject hopper which is adapted to store a recyclable substance and a cyclone which is connected with the eject hopper by a pressure line and is adapted to re-supply a recyclable substance supplied from the eject hopper. Claims 8-10 depend on these distinctive features.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571.272.1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYDIA EDWARDS/

Examiner

Art Unit 1797

LE

/Walter D. Griffin/

Supervisory Patent Examiner, Art Unit 1797